



Munich Personal RePEc Archive

Shari'ah Screening Methodology- New Shari'ah Compliant Approach

Ramazan Yildirim and Bilal Ilhan

UPSITE Consulting S.P.C, Investment Office of the Presidency of
Turkey

April 2018

Online at <https://mpa.ub.uni-muenchen.de/90277/>

MPRA Paper No. 90277, posted 29 November 2018 08:04 UTC

Shari'ah Screening Methodology - New Shari'ah Compliant Approach*

Ramazan Yildirim^a and Bilal Ilhan^b

ABSTRACT

Purpose – The purpose of this paper is to address to a long-standing criticism of the various Shari'ah screening methodologies implemented by Islamic index providers. This study aims to provide evidences derived from the Islamic sources (Qur'an & Sunnah) and offers a potential solution for the harmonization of Shari'ah screening methodologies.

Design/methodology/approach - A literature review of the criticisms is presented along with a new approach to discussing the rationale behind financial screening criteria. All criticisms centering on current Shari'ah screening methodologies can be reduced to two points, namely, the financial ratio, and the threshold criteria. The approach proposed here discusses the rationale for Shari'ah compliance classification (the judgment per se), followed by a discussion addressing the important criticism related to the quantitative screen 'leverage ratio'.

Findings - Strong evidences from the Qur'an reveal that the most righteous and fair judgment is provided when the only factors that are considered are the entirely endogenous factors. This study further emphasizes the importance of using a screening methodology that supports the main notions of Islamic finance as a whole, and adheres to the essence of the ayah (Al-Baqarah: 275)

Research limitations/implications - This is 'preliminary' research and analysis that holds considerable possibility of further deepening, validation and substantiation.

Practical implications - This study exhibits a potential towards the harmonization of Shari'ah screening methodologies which encourages the participation of Muslim investors by ensuring better awareness and confidence regarding stock investments.

Originality/value – This paper fulfils an identified need to study how Shari'ah screening methodologies can be derived from the Islamic sources yet is based on “out-of-the-box” thinking.

* This is a revised version of the paper which was presented at the first Islamic Finance Innovation Festival 2016 (IFInnofest 2016) sponsored by Bank Negara and conducted by INCEIF. This paper received the 1st Prize Winner award for Idea Pitch (Exhibitor). The authors are grateful to the participants of the conference for their valuable comments which improved the quality of the paper immensely.

Keywords – Shari'ah Screening, Islamic Equity Index, Market Capitalization, Total Debt, Quran & Sunnah

^a Corresponding author: Managing Director, UPSITE Consulting S.P.C, The Lagoon, Amwaj Island, Muharraq, Bahrain, Email: ramy@upsiteconsulting.com, M: +97339160235

^b Economist, Investment Office of the Presidency of Turkey, Email: bilhan@invest.gov.tr, M: +905360751319

1. INTRODUCTION

During the last decades, Islamic Finance experienced enormous growth and innovation within the currently overpowered global (conventional) financial industry. According to HSBC, the Islamic finance industry showed an annual growth rate of 28% during the years 2006-2009 (despite the Global Financial Crisis in 2007-08).¹ Thomson Reuters reports an average growth rate of 10% per year, with the total assets under management around at USD 2 trillion in 2015 and USD 3.25 trillion by 2020.²

In line with this growth, innovative Islamic finance products have been introduced in the Islamic financial market. This can be attributed to the increasing demand for such products by the rapidly expanding Muslim population who require finance products that are compatible with their beliefs (Graiss and Pelligrini, 2006). One of the areas which have affected the recent growth of Islamic Finance is the investment in international stock markets. An average growth rate of approx. 8% per annum is reported by Thomson Reuters, with the Islamic funds' assets under management around at USD 65 billion in 2015 and USD 88 billion by 2020.³ Many individual and institutional investors, mainly from Islamic countries, seek to invest only in stocks that are compliant with the Shari'ah (i.e. Islamic law).

To address the mentioned increasing demand, different index providers started to develop their Islamic indices based on their proprietary Shari'ah screening methodology. These Shari'ah screening standards are set on two primary levels: industry activity and financial ratios. Companies involved in prohibited activities such as conventional financial services, pork, alcohol, tobacco, gaming, pornography, etc. are deemed non-compliant by Shari'ah law. After removing companies with non-compliant activities, the remaining companies are further screened for compliance with the pre-determined financial ratios and its maximum threshold (e.g. leverage ratio $\leq 33\%$).

In line with these movement, Dow Jones introduced and launched their first index (the Dow Jones Islamic Market Index, DJIMI) together with their applied screening methodology. Other index providers relied on the same principle while launching their own screening methodologies upon approval of each index provider's individual Shari'ah board. Each Shari'ah index provider apply their own screening methodology, with some having similar selection criteria while others have different selection criteria. Authors such as Derigs and Marzban (2008) and others have addressed the dilemma of having different screening criteria and highlighted the importance of harmonizing the screening criteria and addressing the discrepancies resulting from different screening processes, i.e. a company could be screened as compliant in accordance with one index criterion but be rejected and considered non-compliant in accordance with another index criterion. Among others, Khatkhatay and Nisar (2007), Derigs and Marzban (2008), Sukri Ramlee, Mohd. (2012), Christine S.F. Ho (2015) and Gamaleldin (2015) have discussed the rationale behind these pre-defined financial ratios and attempted to offer a revised version of a Shari'ah screening methodology. However, neither a satisfactory description of the rationale

¹ Reuters Islamic Banking and Finance Summit, 2010.

² See Islamic Finance Development Report 2015, ICD-Thomson Reuters, represented by the Global Islamic Finance Center.

³ *ibid*

behind the financial ratios (that is justified by Islamic sources) nor a solution for the long-standing need for harmonization has been provided, yet.

In light of the discussions about Shari'ah screening methodology, the following research objective is proposed: *Investigating the primary sources of Shari'ah (i.e. The Holy Qur'an and Sunnah) to find any specific guidance to provide a unique solution of Shari'ah screening methodology for future standardization.*

The rest of this study is organized as follows: Section 2 provides briefly the historical background of the newly implemented stocks screening procedure. Sections 3 and 4 show the development of the Shari'ah screening methodology and elaborate the screening criterion set by the DJIMI, and critically assesses the currently applied Shari'ah screening methodologies, respectively. Section 5 discusses the rationale of the Shari'ah screening methodologies and takes a look at what goes on 'behind the scenes' of the major financial screening criterion of "*debt-to-equity ratio*". Section 6 concludes.

2. HISTORICAL BACKGROUND

In the introduction, we mentioned that many individual and institutional investors seek guidance on investing in international stock markets that are compliant with the principles of Islam. Islam with Shari'ah as its core, is a religion that provides guidance in all aspects of the Muslim's life. Hence, all actions conducted by a Muslim are required to be in accordance with the teachings of Islam, including economic affairs. The concept of screening companies before making investments in them is derived from the Shari'ah principle that Muslims should not participate in an activity that does not comply with the teachings of Islam (Mian, 2008).

Muslims around the world have been seeking the guidance of Shari'ah scholars on the permissibility of investments in stock markets. In practice, however, as Mian (2008) states, it has evolved from an informal consultation with a local mosque leader to the development of a methodology approved by renowned religious scholars and used by financial institutions globally. Increased awareness of potential Muslim investors played an important role in the development of the Shari'ah screening methodology. Prominent Shari'ah scholars Salih Tug (Turkey), Sheikh Mohammad Al Tayyeb Al Najar (Egypt) and Muhammad Taqi Usmani (Pakistan) teamed up in 1987 with the objective of finding a solution that would allow Muslim investor to own shares of listed joint stock companies (Mian, 2008).

Sheikh Nizam Yaqoubi, who issued the fatwa⁴ for the DJIMI in 1998, is a key player in the area of Shari'ah compliant stocks screening. In an interview in 2015,⁵ Sheikh Nizam explained the historical motivation dating back to the 1990s' Dot.com boom that attracted many Muslims around the world to make investments using their families' wealth in expectation of high returns. These potential investors around the world inquired into the permissibility of investing in individual stocks. As it was impossible to respond thoroughly and individually to all inquiries

⁴ Fatwa is the embodiment of religious decrees, edicts, opinions or judgement based on scholarly discussions derived from religious sources. Source: ISRA

⁵ See Farid Gamaleldin (2015). Interview on "Background of Shariah Compliance Stocks Screening and Purification Fatwa", interview conducted in person by Farid Gamaleldin on 2. February 2015.

due to the constraints of time and resources, Sheikh Nizam proposed that he issue a general criterion that can be applied to identify those companies operating within the acceptable range of Shari'ah principles (Gamaleldin, 2015).

3. SHARI'AH SCREENING METHODOLOGY

In recent years, several stock exchanges and financial institutions have established Shari'ah indices to increase participation in equities by Muslim investors. The first Islamic equity index was introduced in Malaysia by RHB Unit Trust Management Berhad in 1996. Following the establishment of the DJIMI in 1999 and relying on the same principles, the Kuala Lumpur Shariah Index and FTSE Islamic Index were both launched in the year 1999.⁶ Since then, other renowned global and local Shari'ah indices have been introduced, such as, among others, the Morgan Stanley Capital International World Islamic Index (MSCI) in 2007, the Kerachi Meezan Index in 2009 and the STOXX Europe Islamic Index in 2011.

A recent study of Catherine S.F. Ho (2015) reviews the Shari'ah screening methodologies of well-known global Islamic Financial Institutions. The author suggests setting globally acceptable Shari'ah screening methodologies for greater harmonization, that would provide a clearer understanding on Islamic investing which in turn could support the growing trend of the Islamic finance sector as a whole. All of the different Shari'ah index provider have in common the aim of identifying the elements that violate the rules and guidelines of Shari'ah law, as contained in the Holy Qur'an (considered by Muslims to be the revealed word of God) and the Sunnah (the sayings and practices of the Prophet Muhammad (PBUH)). Shari'ah law prohibits *riba* (usury/interest), *gharar* (unnecessary/excessive risk, uncertainty) and *maysir* (gambling/speculation), etc. These elements are common and present in many conventional financial activities.

Alhabshi (2008), cited in Adam and Bakar (2014) has argued that “*stocks have to be either Shari'ah compliant (SC) or non-compliant (SNC)*”. Khatkhatay and Nisar (2007) support Alhabshi's position, saying that “*fully Shari'ah compliant equities are extremely rare*”. The reason for this is that most of the countries do have conventional finance institutions, therefore, companies are exposed to *riba*-related activities when dealing with these institutions. A similar statement has been expressed by Donia and Marzban (2008), who say “*it is almost impossible to find companies which are not dealing with conventional banks and either earn or pay interest*”. As stated by Adam and Bakar (2014), “*To overcome this issue, Shari'ah scholars have agreed on certain acceptable level to which companies can involve in such practices and have outlined the steps to purify their earnings of such sinful elements*”.

From Shari'ah perspective, publicly listed companies can be classified into three groups regarding their operations and transactions: (see Gamaleldin, 2015)

1. Companies with permissible operations and transactions: The shares of these companies can be owned and traded.

⁶ See Al-Bashir, (not dated), p.107.

2. Companies with forbidden operations and transactions: For instance, conventional financial services, pork, alcohol, tobacco, entertainment (incl. gambling, cinema, adult entertainment etc.). The shares of these companies cannot be owned and traded.
3. Companies with permissible operations but are also involved in impermissible transactions. For instance, deposit against interest, acquiring interest-bearing debts.

Regarding the first and second group of companies, Shari'ah scholar are in full agreement. However, in respect to the third group of companies, opinions diverge. The majority of Shari'ah scholars permit owning and trading the stocks of the companies from the third group,⁷ however, subject to the passing of a Shari'ah screening methodology.

The DJIMI can be considered as the pioneer among all Shari'ah indices in the definition and application of a Shari'ah screening methodology. The Dow Jones Global Index (DJGI) is the central pool from which stocks are filtered and selected in accordance with Shari'ah criteria. Based on the DJIMI Shari'ah supervisory board's determination of the eligibility for the indices, companies' stocks are subject to two primary screening levels, *the qualitative screening and quantitative screening*.

1. In qualitative screening, the business operation (sector/industry) of each company is assessed. Companies involved in activities prohibited by Shari'ah law are deemed Shari'ah non-compliant (SNC). Activities generally considered non-compliant include those involving conventional financial services, pork, alcohol, tobacco, weapon and defense,⁸ entertainment (incl. gambling, cinema, adult entertainments, etc.), etc.

As mentioned previously, since companies are exposed to riba-related activities by default (due to the current capitalistic-oriented system), Shari'ah scholars have set a 'tolerance level' of income generated through Shari'ah non-compliant activities. The respective financial ratio (as a part of the qualitative screens and subject for purification) of income from 'impermissible' transactions divided by total revenue, must be less than 5%.

2. After removing companies with non-compliant activities, the remaining companies are further screened for compliance with the pre-determined financial ratios to test the level of debt (leverage), cash and interest-bearing securities, and accounts receivables against the threshold determined by Dow Jones Shari'ah supervisory board. All of the following financial ratios must be less than 33%:

- Total debt divided by trailing 24-month average market capitalization.

⁷ For more detail, please see Gamaleldin (2015), pp13-18.

⁸ Although no universal consensus exists among contemporary Shari'ah scholars on the prohibition of tobacco companies, hotels and the defense industry, most Shari'ah boards have advised against investment in companies involved in these activities. See Dow Jones Islamic Market Indices Methodology, October 2015.

- The sum of a company's cash and interest-bearing securities divided by trailing 24-month average market capitalization.
- Accounts receivables divided by trailing 24-month average market capitalization.

Companies, which pass both qualitative and quantitative screening criteria are classified as being Shari'ah compliant (SC).

4. CRITICAL COMMENTS ON SHARI'AH SCREENING METHODOLOGY

As mentioned in the previous section, the Shari'ah scholars and Shari'ah index providers have defined screening methodologies that can be applied to address Muslim investors' concerns regarding the permissibility of investment in individual stocks. After Dow Jones introduced and launched their first index (DJIMI) together with their applied screening methodology, other index providers relied on the same principles and launched their own screening methodologies upon approval of their respective Shari'ah boards. Each Shari'ah index provider then apply their own screening methodology, which may or may not be similar to other Shari'ah index providers. On a regular basis (e.g. annually, semi-annually, quarterly) Shari'ah index provider apply their screening methodology on each publicly-listed company within their own index universe to ensure ongoing compliance.

Companies classified as being permissible are called Shari'ah compliant and therefore become "*halal*" for Muslim investors to invest in, while companies classified as Shari'ah non-compliant and are "*haram*" for Muslim investors to invest in.

Gamaleldin (2015) has referred to a study by Ismail et al. (n.d.), in which the authors applied the DJIMI criteria to the companies classified as being SC based on Bursa Malaysia criteria. The authors concluded that most of the companies that are screened as SC in accordance with the Shari'ah Advisory Council of Bursa Malaysia (SAC) did not meet DJIMI criteria. The study highlighted the importance of harmonizing the screening criteria and the discrepancies resulting when using different screening criteria.⁹

Briefly stated, the following criticisms have been made relating to the current screening methodologies:¹⁰

1. Khatkhatay and Nisar (2007) examined the criteria set by DJIMI in the context of the Bombay Stock Exchange (BSE 500) and criticized the use of market capitalization as part of the screening ratios, as they consider it not relevant. They proposed using total assets as being more rational. The authors also criticized the absence of a separate ratio for interest income, and argued that debt and liquid assets ratio threshold needed to be tightened. The level of receivables was shown to have little relevance.

⁹ See Gamaleldin (2015), p.7.

¹⁰ For more details on critical comments from various studies, please see Gamaleldin (2015), pp.6-10.

2. Derigs and Marzban (2008) reviewed major Islamic indices to identify Shari'ah compliant companies. They analyzed the similarities and differences between Islamic index providers and conducted a comparative survey of nine Islamic indices with the ratio thresholds set by each index provider. The authors conclude that a company could be screened as permissible in accordance with one index criteria and might be rejected and considered impermissible in accordance to another index criterion. The authors addressed the dilemma of having different screening criteria.
3. Htay and Abdeen (2013) examined the criteria set by various indices. They criticized the inconsistency and that may have an adverse effect on Muslim investors.
4. Sani and Othman (2013) examined the impact of revising the screening methodology by the Shari'ah Advisory Council (SAC) of Securities Commission of Malaysia, and applied Morgan Stanley Capital International (MSCI) criteria to compare the difference between SAC criteria and MSCI criteria. They compared different thresholds used by index providers and the composition of the financial ratio. The authors urged for the harmonization of various screening methodologies.
5. Zandi, Abdul Razak and Hussin (2014) examined the eligible stocks which have been approved by the SACSC against the criteria of DJIMI, MSCI, and Standard and Poor's (S&P). The authors recommended adding leverage and liquidity ratio to Malaysian screening criteria and to use total assets instead of market capitalization in DJIMI and S&P.
6. In an interview in 2015, Abdul-Hameed El Baaly¹¹ states that using the Hadith of "one-third is big" is improper analogical reasoning. Sheikh Nizam Yaqoubi's opinion differs that of Dr. El Baaly and justifies as it can be used as a kind of "domestication".¹²

It is important to note, this mentioned Hadith of "one-third is big" is unanimously used as a justification of the 33% threshold criterion applied to quantitative screening level. There are several ahadith, narrated about the same incident, which has been reported in Sahih Muslim, Book 13 "Kitab Al-Wasiyya" in reports 3991, 3996 and 3997. The longer version of the hadith, i.e. 3991 and 3997 is reported in Appendix A.

Ibn Sa'd reported his father as saying: Allah's Apostle (may peace be upon him) visited me during my illness. I said: I am willing away the whole of my property. He said: No. I said: Then half? He said: No. I said: Should I will away one-third? He said: Yes, and even one-third is enough.

Sahih Muslim, Book 13 "Kitab Al-Wasiyya" No: 3996

¹¹ See Farid Gamaleldin (2015), p. 8.

¹² In Islamic Fiqh (Islamic jurisprudence) the so called Istinbath (domestication) is a well-established and widely applied approach in the process of Ijtihad. It basically allows the mujtahid to derive hukm by relying on sources (Ayat or Hadith), even though the source has nothing to do with the content of the issue being examined.

5. PROPOSED SOLUTION FOR SHARI'AH SCREENING METHODOLOGY

In the previous section, we have referred to criticisms of Shari'ah screening methodologies as currently applied by many Islamic index providers and financial institutions globally. Companies that are classified as being Shari'ah compliant must adhere to and pass the stocks screening criteria set by the Shari'ah scholars.

Islamic index providers apply their screening methodology based on the fatwa issued by their Shari'ah supervisory board. Some index providers may share similar selection criteria, while others may have stark differences. In Derigs and Marzban (2008), the authors stress the different definitions of the threshold criteria (as applied in quantitative screens) and conclude that companies screened as compliant in accordance with an index criterion might be non-compliant in accordance with another index criterion.

In contrast to Derigs and Marzban (2008), among others, Khatkhatay and Nisar (2007), Zandi, Abdul Razak and Hussin (2014) and Gamaleldin (2015) criticize the different definitions of the ratio *per se* and strongly recommend the use of total assets in the denominator for quantitative screens instead of market capitalization as used by Dow Jones, S&P and AAOIFI, etc. In this way, the authors make the same case as that contained in the FTSE Factsheet: *“Unlike other competitor methodologies, a more conservative approach to Shari'ah compliance is ensured by rating debt ratio limits that are measured as a percentage of total assets, rather than more volatile measures that use 12-month trailing market capitalization. This ensures companies do not pass the screening criteria due to market price fluctuation, allowing the methodology to be less speculative and more in keeping with Shari'ah principles.”*¹³ Consequently, the number of Shari'ah compliant companies fluctuates even within the same index provider over the short period of time.

These criticisms of the current Shari'ah screening methodologies can be narrowed down to two points, namely, the use of *ratio per se*, i.e. use of market capitalization and the *threshold criteria*.

In the next two sections, we will discuss the rationale and the basis for the Shari'ah compliance classification/judgment *per se*, and address the important criticism of the quantitative screens debt-to-equity ratio (also called financial leverage or capital structure). Additionally, we attempt to provide a unique solution that we believe can be used as a foundation for future standardization.

It should be noted here that we are relying on the information provided derived from the Holy Qur'an and the Sunnah. There is no reason or necessity to provide scientific proofs for the injunctions contained in the Qur'an or Sunnah.

5.1 Shari'ah Compliant versus Shari'ah non-Compliant: The Judgment *per se*

One of the most important questions that should be asked in the field of Shari'ah-compliant screening is: *What is the basis behind these compliance screens? and Does it achieve justice?*

¹³ See FTSE Factsheet as of 30 November 2015. FTSE Shariah Global Equity Index Series. Available at: <http://www.ftse.com/products/indices/Global-Shariah>

Until now, Islamic index providers provide only their screening methodology, as per the fatwa issued by their Shari'ah supervisory board, while academics apply these screening methodologies to identify Shari'ah compliant companies for their research studies. However, both the index provider and many academics fail to satisfactorily provide the rationale behind these applied criteria. The following statement addresses this issue and builds the bridge to our argument:

“There are different opinions about such investment as there is no scriptural basis in Quran or Prophet Mohamed (PBUH) traditions regarding investment in stock markets. Contemporary scholars have contributed through exercising analogical reasoning and referring to primary objectives and jurisprudence rules in providing methodologies by which international and locally listed securities are filtered in agreement with Islamic Shari'ah.”

Gamaleldin (2015), pp.2

In other words, since there is no direct provision from the main sources of Islam regarding investment in stock markets, Shari'ah scholars' (Shari'ah supervisory boards) perform ijtihad and issue fatwa to provide solutions, relying as best as they can on the Maqasid Al-Shari'ah.¹⁴ A fatwa is a religious decree, edict, opinion or judgment based on scholarly discussions derived from the religious sources (see Section 2). As mentioned before, Shari'ah scholars, being the guardians of the Islamic religious sciences, also serve the judicial function as judges and interpreters of Islamic Law. Thinking “out-of-the-box” and rational thinking are, thus, not only permissible but encouraged in Islam.¹⁵

The question arises: *Who is the owner of The Day of Judgment? - or - Who is the best judge we can learn from?* The answer without any hesitation is: Allah! One of the names of Allah is *Al-Hakam*¹⁶, *The Judge*. Every Muslim¹⁷ believes that all mankind (without exception) is subject to being judged by Allah Himself on the Day of Judgment. This is evidenced by the Holy Qur'an and the Sunnah. For this discussion, we limit ourselves to a few ayat or hadiths (out of the very many) which suffice to prove our point:

¹⁴ Maqasid al-Shariah as defined by Ibn 'Ashur means "the deeper meanings and inner aspects of wisdom (hikam) considered by the Lawgiver in all or most of the areas and circumstances of legislation".

¹⁵ See M. Qasmi, (not dated). Available at:

http://www.irfi.org/articles/articles_351_400/does_islam_permit_critical_think.htm

¹⁶ See The 99 names of Allah - Asmaa'ul Husna. Available at:

https://en.wikipedia.org/wiki/Names_of_God_in_Islam

¹⁷ All monotheistic religions, e.g. Judaism, Christianity and Islam, share in common the doctrine of the “Day of Judgement”. For instance, Christianity in the Books of Daniel, Isaiah and Revelation it is said: “Then I saw a great white throne and him who was seated on it. From his presence earth and sky fled away, and no place was found for them. And I saw the dead, great and small, standing before the throne, and books were opened. Then another book was opened, which is the book of life. And the dead were judged by what was written in the books, according to what they had done.” See Bible, Revelation (20:11-12).

Source: <https://www.biblegateway.com/passage/?search=Rev+20%3A11%E2%80%9312&version=NRSV>

Note: Any source from the Holy Qur'an and Sunnah is fully sufficient for every Muslim to be convinced, however, for the sake of NOT ignoring the other monotheistic religions' (Ahl-e-Kitaab) view on this topic, we have mentioned this example in this footnote.

وَمَا تَكُونُ فِي شَأْنٍ وَمَا تَتْلُو مِنْهُ مِنْ قُرْآنٍ وَلَا تَعْمَلُونَ مِنْ عَمَلٍ إِلَّا كُنَّا عَلَيْكُمْ شُهُودًا إِذْ تُفِيضُونَ فِيهِ ۚ وَمَا يَعْزُبُ عَنْ رَبِّكَ مِنْ مِثْقَالِ ذَرَّةٍ فِي الْأَرْضِ وَلَا فِي السَّمَاءِ وَلَا أَصْغَرَ مِنْ ذَلِكَ وَلَا أَكْبَرَ إِلَّا فِي كِتَابٍ مُبِينٍ (62)

And thou (Muhammad) art not occupied with any business and thou recitest not a Lecture from this (Scripture), and ye (mankind) perform no act, but We are Witness of you when ye are engaged therein. And not an atom's weight in the earth or in the sky escapeth your Lord, nor what is less than that or greater than that, but it is (written) in a clear Book.

(Yunus: 61, Translation: Pickthall)

فَأَمَّا مَنْ أُوتِيَ كِتَابَهُ بِيَمِينِهِ (7) فَسَوْفَ يُحَاسَبُ حِسَابًا يَسِيرًا (8) وَيَنْقَلِبُ إِلَى أَهْلِهِ مَسْرُورًا (9)
وَأَمَّا مَنْ أُوتِيَ كِتَابَهُ وَرَاءَ ظَهْرِهِ (10) فَسَوْفَ يَدْعُو ثُبُورًا (11)

Then whoso is given his account in his right hand. He truly will receive an easy reckoning. And will return unto his folk in joy. But whoso is given his account behind his back, He surely will invoke destruction.

(Al-Inshiqaq: 7-11, Translation: Pickthall)

فَمَنْ يَعْمَلْ مِثْقَالَ ذَرَّةٍ خَيْرًا يَرَهُ (7) وَمَنْ يَعْمَلْ مِثْقَالَ ذَرَّةٍ شَرًّا يَرَهُ (8)

Then shall anyone who has done an atom's weight of good see it! And anyone who has done an atom's weight of evil shall see it.

(Az-Zalzala: 7-8, Translation: Pickthall)

The first ayah informs us that every single act (even an 'atom' of a thing) we do in our life, whether good or bad, is recorded in the Preserved Book (Lauh Mahfuzh). All of one's deeds during his/her stay in this world (dunya) will also be recorded in ones' own book.

The second Ayah informs us of a particular procedure on the Day of Resurrection. Some will take their books in their right hands, some will take their books in their left hands (from behind their backs).¹⁸ From the two Ayah, it is believed that people will take their books to their graves, books which contain the records of all their deeds.¹⁹

In the third ayah, Allah clearly informs mankind that everyone will be judged based on the values (deeds) written in his/her book and that Allah will ultimately make His decision on whether someone will enter Jennah (Paradise) or will enter to Jahannam (Hell).

In other words, on the Day of Judgment, Allah Al-Hakim will exercise His judgment based on the values (deeds) recorded in one's book that are generated by one's own "irada" (free will), i.e.

¹⁸ See Sheikh Muhammad Saalih Al-Munajjid, Fatwa: 52887, Source: <https://islamqa.info/en/52887>

¹⁹ Islam, is one of the few religions in the world, that openly speaks about the hereafter. Muslim parents even pass this undeniable fact to their children in their childhood. For instance, Islam teaches us whatever someone possesses (e.g. wealth) everything will be left in this world, except his/her book of deeds.

actions performed within one's own control. Consequently, everyone is entirely responsible and accountable for their own deeds on that day. In the language of Finance or Econometrics, *Allah's judgment is purely based on everyone's "endogenous" factors*. Many Shari'ah scholars, on the contrary, can be said to have erroneously made use of exogenous factors.

Figure 1 shows the frequently applied financial items (limited to balance sheet) that have been extensively used in the capital structure literature. In Part A, we have divided these financial items into numerators and denominators, and in Part B, we have classified these financial items as endogenous or exogenous factors. Interestingly, all of these financial items, except for market capitalization, are classified as endogenous. More specifically, short-term debt, long-term debt, total debt, total liabilities, book debt, total assets, total capital and total equity are endogenous, and are, thereby, within companies' control. In other words, each of these factors are the result of companies' management performance (i.e. actions and decisions made by their executives) and are (under normal circumstances) annually recorded in their accounting books – the so-called book values.

In Part C, one notes that market capitalization (an exogenous factor that is beyond the control of each company) has been applied in the debt-to-equity ratio in the Shari'ah screens of Dow Jones.²⁰ Any change in the market values may change the leverage ratio without any active changes in the debt or equity structure of the company. More specifically, when the market capitalization value of a company changes, its leverage ratios changes by default. Since there is a given threshold of 33 % on Shari'ah compliant companies, there is a risk that companies cross this threshold (restriction) without any actions or decisions made by their senior management. These companies would thus suddenly will be classified as Shari'ah non-compliant (see criticism listed in Section 4).

Part A: Financial items applied ^a		Part B: Financial items classified		Part C: Dow Jones Islamic Index
Numerator	Denominator	Endogenous	Exogenous	Leverage Ratio
Short-Term Debt	Total Assets	Short-Term Debt	Market Capitalization	Total Debt/ Market Capitalization
Long-Term Debt	Total Capital	Long-Term Debt		
Total Debt	Total Equity	Total Debt		
Total Liabilities	Market Capitalization	Total Liabilities		
etc.	etc.	Total Assets		
		Total Capital		
		Total Equity		

^a not limited to

Figure 1: Overview of financial items frequently used on leverage ratios
Source: own contribution

Conventional finance literature provides the pros and cons of book value- and market value of leverage. Briefly, it is argued that book leverage is past-oriented and is influenced by the choice of the accounting method, whereas market leverage is future-oriented and better reflect the intrinsic firm value. Even though it is well known that market capitalization is subject to high volatility and impacts the result of Shari'ah screens, proponents of using market capitalization in

²⁰ Financial institutions such as S&P, Al-Rajhi, AAOIFI, STOXX, and others also apply market capitalization in their Shari'ah Screening Methodology.

the denominator, for instance, Sheikh Nizam Yaqoubi argues that if a company's assets and liabilities are valued at market value, it should equate market capitalization value.²¹

As mentioned above, the purpose of applying a Shari'ah screening methodology is to judge and classify companies as being either Shari'ah compliant and Shari'ah noncompliant. As the Holy Qur'an teaches us, the most righteous and fair judgment is when only "endogenous factors" are applied. In other words, in order to be in line with Islamic principles and Maqasid Al-Shari'ah, the Shari'ah supervisory board has to consider only factors that are entirely in the control of each company. Application of exogenous factors as a part of Shari'ah screens is injustice per se, since judgment were made on factors outside the control of each company. Beside the arguments of conventional corporate finance, Shari'ah scholars (who are the proponents of using *exogenous* factors) can adopt the "endogenous factors" approach in their quantitative screens on all ratios, which also includes the leverage ratio.

We are not against, nor decline, nor reject the concept of market values of leverage in corporate finance. We even think it is an important measure that should run in parallel with the book value of leverage (e.g. for comparative purposes). However, in terms of classifying / judging companies from an Islamic perspective (*i.e. SC or SNC*), as elucidated in the derivation process above, we strongly suggest using book values (*i.e. balance sheet items*).

5.2 Ratio and threshold criterion

We have shown that in order to be in line with Islamic principles (Maqasid Al-Shari'ah), only "endogenous factors" should be applied in Shari'ah screening methodologies. Consequently, consideration can only be given to the financial items recorded in companies' financial statements, e.g. the balance sheet. For the sake of our approach, we have simplified the balance sheet in Figure 2 for demonstration purposes. As the rule goes, the left side (total assets) and the right side (total liabilities and total equity) must balance out. In other words, a company has to finance their total assets (which they own) either through liabilities (which they owe), through equity (own capital provided), or a mix of both. We have further divided total liabilities into interest- and non-interest-bearing liabilities. The frequently and interchangeably used terms are financial debt and non-financial debt, respectively.

Balance Sheet	
	<i>non-interest bearing</i>
	<i>interest bearing</i>
	Total Liability
	Total Equity
Total Assets	Total Liab & Equity

Figure 2: Simplified Balance Sheet
Source: own contribution

In the following discussion, we ask: *What is the rationale behind these ratios and its threshold?* The answer to this question ultimately will influence the results of the Shari'ah screens applied

²¹ See Farid Gamaleldin (2015). Interview on "Background of Shariah Compliance Stocks Screening and Purification Fatwa", interview conducted in person by Farid Gamaleldin on 2. February 2015.

on companies. Referring to the same argument referred to before that there is no direct provision from the primary sources of Islam regarding investment in stock market, the current practice is for Shari'ah scholars to use the "one-third is big" hadith as a justification for the 33% threshold criteria set on the quantitative screening level. However, the financial screening criterion consist of two parts - the ratio per se and the threshold. The ratio further consists of a numerator and denominator. Current Shari'ah screens have unanimously and implicitly accepted the use of total debt (i.e. interest-bearing debt) in the numerator (see Figure 3) and variations only exist in the denominator and the threshold criteria. As stated earlier, the criticisms focus on the two points discussed earlier, whereas Abdul-Hameed El-Baaly states that relying on this "one-third is big" hadith as a justification for the Shari'ah screens is improper by itself. On the contrary, Yaqoubi justifies the use of this hadith as a kind of "domestication". (Section 4) We, however, have to "think out-of-the-box" and apply rational thinking to address these common issues from a different angle.

Which primary Islamic source can support the current application of the Shari'ah screens? Neither the Holy Qur'an nor the Hadith offer direct provision regarding investment in stock markets. Thus, we have no choice but to refer to and analyze the same "one-third is big" hadith. Our findings are promising, as we have found a "kind of a provision" which lead us to derive the leverage screening criterion. Despite the fact that our findings respond to all existing points of criticism, our proposed solution can even be used as a framework for further development towards standardization of the current Shari'ah screening methodologies. We have divided the process of analyzing the hadith narrated in Sahih Muslim, Book 13 "Kitab Al-Wasiyya" No: 3996, in three steps.

*Ibn Sa'd reported his father as saying: Allah's Apostle (may peace be upon him) visited me during my illness. I said: I am willing away **the whole of my property**. He said: No. I said: Then half? He said: No. I said: Should I will away one-third? **He said: Yes, and even one-third is enough.***

Sahih Muslim, Book 13 "Kitab Al-Wasiyya" No: 3996

- a) In the first step, we have read the Hadith '*as is*'. The following implication took our attention, which can be highlighted as the following: The expression "*the whole of my property*" indicates something that Ibn Waqqas possessed, i.e. physical assets, cash, etc. As mentioned above, only financial items recorded in companies' balance sheet will be considered. Therefore, we raise the question: *Would 'his whole property' closely represent today's total value of assets or equity?* Prior to answering this question, the next question is: *What if Ibn Waqqas had debt?* With the highest certainty, we can conclude the following:

1. His debt was not interest-based.
2. Ibn Waqqas would have already considered to pay off all his debt prior to approaching Prophet Mohammad (PBUH) with such request.
3. Prophet Mohammad (PBUH) would have requested from him to seek his freedom first by paying ALL of his debt²² prior giving any amount of Sadaqah.

²² "Freedom from liability is a fundamental principal." see Majallah Al-Ahkam Al-Adliyyah Article 7.

We conclude, that the judgment made by Prophet Mohammed (PBUH) in the hadith was based on Ibn Waqqas' total value of equity. Consequently, this hadith would be interpreted, by relying on the direction given by the above-mentioned ayah(s), that the judgment was based on the "book value" (i.e. total value of equity).

- b) In the second step, we have read the Hadith '*as is*' and the following implication took our attention: As mentioned earlier, Islamic index providers have used the maximum threshold criterion of 33% by relying on this hadith as a justification (note that the name "one-third is big" is derived from the last statement of this hadith). In Islamic fiqh (Islamic jurisprudence) it is interpreted that the *minimal* portion (subset) of the set (full entity) cannot exceed 33.33% or *majority* (subset) of the set (full entity) cannot be less than 66.66%. The opinion of the Islamic index providers on the set "full entity" is considered either as total assets or market capitalization. As mentioned before, there are two major reason for us to use total assets as "full entity". First, the derivation from the ayah(s) that only financial items recorded in companies' financial statements can be considered (e.g. balance sheet). Second, as stated in Mian (2014),²³ "*market capitalization does not give the true value of the company. It rather reflects, among various other factors, the market sentiments about a company's future performance on a given day. This can change due to factors that are totally unconnected to the company (e.g. the poor performance of another company in the same industry sector).*"²⁴

Figure 3 show the overview of the leverage ratio and its threshold used by the major Islamic index provider and financial institutions. It is interesting to observe, first, that all leverage screens are based on the *minimal* portion²⁵ principle. Second, it is notable how one-third has been interpreted and implemented as ranging from 30% - 37%.

Islamic Index Provider	Numerator	Denominator	Threshold
Dow Jones	Total Debt	Market Capitalization	< 33%
S&P	Total Debt	Market Capitalization	< 33%
AAOIFI	Total Debt	Market Capitalization	< 30%
Al-Rajhi	Total Debt	Market Capitalization	< 30%
STOXX ^a	Total Debt	Market Capitalization/Total Assets	< 33%
Malaysia SC	Total Debt	Total Assets	< 33%
FTSE	Total Debt	Total Assets	< 33.33%
MSCI	Total Debt	Total Assets	< 30%
KSE Meezan	Total Debt	Total Assets	< 37%

Source: Authors' own compilation from documentation available on the websites of each index provider.

^aSTOXX denominator considers both, Total Assets or Market Capitalization (whichever is greater).

²³ Shari'ah screening and Islamic equity indexes in Islamic Finance - A Practical Guide by Rahail Ali (2014).

²⁴ IFRS 13 Fair Value Measurement applies to IFRS annual financial statements, that require or permit fair value measurements or disclosures. The Standard defines fair value on the basis of an "exit price" notion and uses a "fair value hierarchy", which results in a market-based, rather than entity-specific, measurement. (see <http://www.ifrs.org/IFRSs/Pages/IFRS.aspx>) In other words, firms are required/strongly encouraged to adjust their total assets annually, which in turn would reflect better the intrinsic value (fair value) of the company.

²⁵ Here, the minimal portion principle is set on elements that are forbidden by the Shari'ah scholars, namely interest-bearing debt.

Figure 3: Leverage criteria applied in Shari'ah screening methodologies

- c) In the third step, we have read the hadith '*not as is*' but with the intention to find a deeper understanding of this narration. Obviously, the content of this hadith is about the inner meaning of giving sadaqah (charity). Sadaqah is an act of worship that is highly preached, emphasized and encouraged in Islam. It is not clear how this hadith could be linked with something that is entirely discouraged in Islam, i.e. debt. We partially agree with both the criticism by Dr. Abdul-Hameed El-Baaly as well as with the interpretation of Nizam Yaqoubi. Since no direct provision from the Holy Qur'an nor the Hadith is offered, Shari'ah scholars have no other choice but to rely on a source that can be taken as "domestication", as Yaqoubi has termed it. However, applying the Hadith narrated in Sahih Muslim, Book 13 "Kitab Al-Wasiyya" No: 3996 as *Domestication/Istinbath* should not be limited to the last statement only (such in the case of all existing Shari'ah screening), rather we recommend utilizing and derive as much as of valuable information from it. Supporting this suggestion and looking at the current Shari'ah screening ratio with its threshold criteria, we disagree with the way this hadith has been put applied. The Holy Quran says:

الَّذِينَ يَأْكُلُونَ الرِّبَا لَا يَقُومُونَ إِلَّا كَمَا يَقُومُ الَّذِي يَتَخَبَّطُهُ الشَّيْطَانُ مِنَ الْمَسِّ ۚ ذَٰلِكَ بِأَنَّهُمْ قَالُوا إِنَّمَا الْبَيْعُ مِثْلُ الرِّبَا ۚ وَأَحَلَّ اللَّهُ الْبَيْعَ وَحَرَّمَ الرِّبَا ۚ فَمَنْ جَاءَهُ مَوْعِظَةٌ مِنْ رَبِّهِ فَانْتَهَىٰ فَلَهُ مَا سَلَفَ وَأَمْرُهُ إِلَى اللَّهِ ۖ وَمَنْ عَادَ فَأُولَٰئِكَ أَصْحَابُ النَّارِ ۖ هُمْ فِيهَا خَالِدُونَ (275)

Those who exact usury will not stand but like one deranged by the Devil's touch. That is because they say, 'Trade is just like usury.' While Allah has allowed trade and forbidden usury. Whoever, on receiving advice from his Lord, relinquishes [usury], shall keep [the gains of] what is past, and his matter shall rest with Allah. As for those who resume, they shall be the inmates of the Fire and they shall remain in it [forever].

(Al-Baqarah: 275)

This ayah is the basis of the entire Islamic financial system. It comes with two provisions. First, it approves and legalizes direct engagement in exchange and trade (al-bay), while encouraging risk-sharing and equity-based transactions (investment operations) such as Musharakah and Mudharabah and promotes entrepreneurship (green colored). Second, it absolutely disapproves and prohibits the payment or receipt of interest (riba/usury) and the involvement in any interest-related transactions (red colored). With these given provisions, there are two approaches that the Islamic financial system (including its financial instruments, screening methodologies, procedures, goods and services, etc.), can adopt, namely, to promote equity-based and risk-sharing instruments, or to demote usury and interest based instruments. Figure 4 tries to illustrate the potential impact of using risk-sharing instruments (such as Musharakah and Mudharabah) on debt-based instruments, especially interest-bearing instruments.

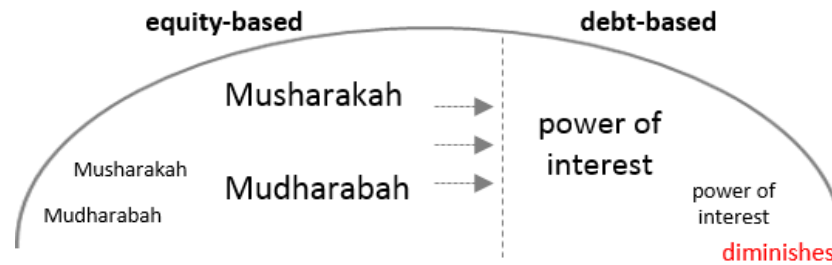


Figure 4: Impact of promoting equity-based instruments on interest
Source: own contribution

The bottom line is that the more Islamic finance promotes and implements equity-based instruments, the lesser room will be available for debt-based instruments. Consequently, the power of interest, which is the main tool of the conventional financial system, will eventually diminish over time. Enhancing this line of thought, all Islamic financial instruments, screening methodologies, procedures, goods and services, etc. should primarily aim to reflect the higher purpose of the first provisions from the ayah, i.e. promoting al-bay. Consequently, to support the notion of Islamic finance as a whole and adhere to the essence of this ayah, we positively frame the Shari'ah compliance criteria that necessarily reflects the Islamic ideology. As supported by Tversky and Kahneman (1981), framing is an important factor affecting perception and behavior of human decision (i.e. investment decision). Since our principle purpose is to promote risk-sharing based financing behavior, i.e. promotion of equity-based funding, we propose the ratio Total Equity over Total Assets $\geq 66.66\%$ as Shari'ah screens for equity (see Figure 5). In the longer version of this Hadith (Sahih Muslim, Book 13 "Kitab Al-Wasiyya" No: 3997 and 3991, see Section 4) Prophet Mohammad (PBUH) states that *"to leave your heirs rich is better..."*. In other words, this part of the hadith indicates that it is better to "keep one's property" for his wellbeing and that of his family members, instead of depriving them in favour of non-family members. Therefore, we place more emphasis on "equity", which can be derived with the implications of the converse statement, i.e. "keep minimum two-third" rather than "give maximum one-third".²⁶

	Numerator	Denominator	Threshold
Proposed Solution	Total Equity	Total Assets	$\geq 66.66\%$

Figure 5: Proposed Shari'ah screens for equity
Source: own contribution

The application of the proposed solution ensures the following capital structure on all Shari'ah compliant companies as shown in Figure 6. Intuitively, we believe it is closer to being Shari'ah-compliant. With the minimum threshold of 66.66% of equity, Shari'ah compliant companies have to consider equity-based financing as a higher priority rather than debt-based financing. Every company's source of funds is either through financial debt, non-financial debt and/or equity. Welch (2011) states that for the average publicly-traded company, financial debt and

²⁶ Our approach is two-fold: First, it allows us to utilize the direct statement made by Allah's Messenger (may peace be upon him) that can be derived from the longer version of these Hadith. Second, it allows us to adhere to the inner meaning of this Hadith.

non-financial debt almost equal in amount.²⁷ The former represents all interest-bearing debt, the latter all non-interest-bearing debt, respectively. With the existence of the non-financial debt (which is not prohibited by Islam) the room for financial debt will be less, and companies, consequently, will engage in less interest-bearing debt.

This further ensures that we can implement an instrument that is itself Shari'ah compliant by adhering to the essence of the ayah (Qur'an 2:275) and supports the notion of Islamic financial system, since we have derived the ratio and its threshold through this given "one-third is big" hadith.

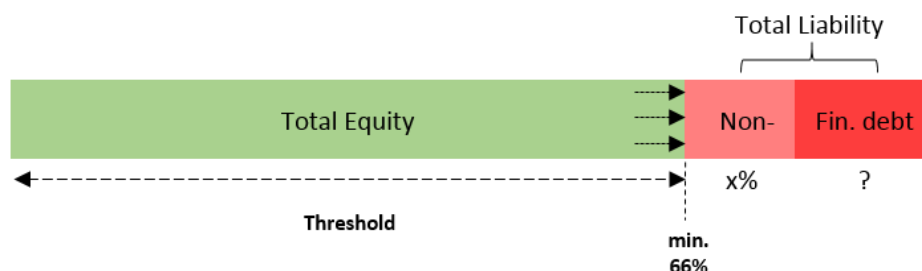


Figure 6: Future Shari'ah compliant companies' capital structure (simplified and demonstrative purposes)

Source: own contribution

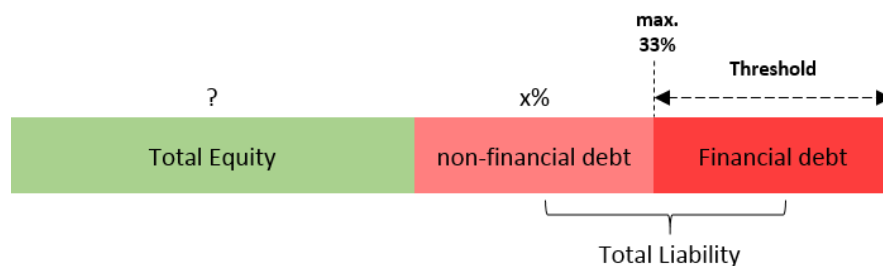


Figure 7: Current Shari'ah compliant companies' capital structure (simplified and demonstrative purposes)

Source: own contribution

Additionally, a brief comment on the impact of the currently applied Shari'ah screens. Figure 7 attempts to illustrate the capital structure of the current DJIMI Shari'ah compliant companies. As mentioned earlier, Shari'ah scholars have unanimously and implicitly accepted the use of interest-bearing debt (i.e. financial debt) in the numerator of their leverage screens. Considering only financial debt (which is prohibited by Islam) in the Shari'ah screening methodologies sounds reasonable. However, as illustrated in Figure 7, in addition to the financial debt, companies utilize non-financial debt to finance their assets approximately in the same amount as financial debt. Hence, they can increase their non-financial debt (which is discouraged by Islam) without any limitation. Table 1 shows the mean values of the ratio Non-Financial Debt over Total Assets of the current DJIMI Shari'ah compliant companies of seven countries and seven industries. The mean values support our arguments and show the average amount on non-

²⁷ See Ivo Welch (2011), p. 4.

interest-bearing debt of Shari'ah compliant companies operating in different countries and industries. Replacing the “x%” in Figure 7 with the mean values immediately reveals that companies can pass the Shari'ah screens even despite being highly indebted, as long as their financial debt level is within the threshold. Along the same line of thought, the next question that arises is *What would be left for equity financing?*

Non-Financial Debt *	Mean	Std.Dev	Min	Max	Obs
Overall	0.298	0.125	0.078	0.687	7340
United States	0.301	0.126	0.078	0.687	3711
United Kingdom	0.358	0.125	0.078	0.687	643
Canada	0.250	0.103	0.078	0.680	469
Japan	0.277	0.097	0.078	0.641	1251
South Korea	0.273	0.116	0.078	0.649	292
Taiwan	0.241	0.143	0.078	0.687	319
India	0.335	0.144	0.078	0.687	655
Oil & Gas	0.287	0.110	0.078	0.687	574
Basic Materials	0.255	0.104	0.078	0.588	594
Industrials	0.332	0.136	0.078	0.687	1830
Consumer Goods	0.318	0.111	0.078	0.687	1295
Technology	0.273	0.133	0.078	0.687	1251
Health Care	0.249	0.109	0.078	0.687	973
Consumer Services	0.325	0.116	0.078	0.687	823

* whereby, Non-Financial Debt = (Total Liabilities - Total Debt**) / Total Assets

** whereby, Total Debt = Short-Term Debt + Long-Term Debt (all interest bearing debt)

Table 1: Descriptive Statistics for Non-Financial Debt of Shari'ah compliant companies under study²⁸

Source: own contribution

Therefore, one could plausibly finalize the ratio of the Shari'ah screens by adding Total Liability in the numerator and using the one-third as threshold criteria, which would finally lead to: Total Liability over Total Assets $\leq 33.33\%$. However, since we suggest drawing attention to the equity financing for the reasons mentioned above, the ratio should be equity oriented with having Total Equity in the numerator rather than any debt-oriented element (see Figure 5 vs. Figure 3).

In this section, we attempt to address our research question as to whether the current debt-to-equity ratios or leverage ratios applied in the Shari'ah screening methodologies follow the teachings of Islam. As shown above, we found strong evidences from the Holy Qur'an that the most righteous and fair judgment is only provided when “endogenous factors” are considered in the screening criterion. Furthermore, we have highlighted the importance of implementing a tool (i.e. Shari'ah screening methodology) that supports the notion of Islamic finance as a whole and put emphasis more on the integration of equity-based rather than debt-base concept. In the following section, we attempt to propose a revised version of currently applied Shari'ah screening methodology.

²⁸ This table shows the mean values of the variable non-financial debt of the Dow Jones Shari'ah compliant firms operating in seven countries and seven industries, for the period 2004-2014. The variable is winsorized at the 1% and 99% level. All data are retrieved from Thomson Reuters Eikon.

5.3 Revised Shari'ah Screening Methodology

Earlier in this section we have pointed out to the goal of providing a unique solution that can be used as a foundation for standardization. To sum up the applied Shari'ah screening methodology and its purpose with our findings in previous sections and bearing in mind that the main purpose is to have an Islamic Financial Stock Market in which the activities are fully in compliance with Shari'ah (Sheikh Yaqoubi in Gamaleldin, 2015). We thus propose the following framework for Shari'ah screening methodology:

In order to determine the eligibility for the indices, companies' stocks are subject to the current practice of applying two primary screening levels:

1. *Qualitative*: In the first screens, the business operation of each company will be assessed and any involvement in prohibited activities by Shari'ah law are deemed Shari'ah non-compliant (SNC). Furthermore, companies with income generated through Shari'ah non-compliant activities should be controlled with the threshold-criteria that impermissible revenue divided by total revenue must be less than 5%.

Rationale: The purpose of the unlawful income criterion is meant to ensure that any impermissible income is limited to a minimum, according to the principles of Shari'ah, whether it is generated through interest or other impermissible activities. As mentioned in Section 3, firms are exposed to riba-related activities by default. Consequently, Shari'ah scholars have set a tolerance level of the income generated through Shari'ah non-compliant activities. However, it is not allowed, to any extent, to benefit from impermissible income, thus it should be donated to charitable activities as a part of their income purification (not to be used in paying tax, alms, advertising, etc.).²⁹ There is no Islamic rationale for the set threshold-criterion of 5% for impermissible income. Consequently, we adopt the common practice applied in current Shari'ah screening and Purification methodologies and rely on the definitions and suggestion of the Shari'ah scholars. Similarly, we rely on the Shari'ah scholars regarding the first screens (qualitative) which is based on the rationale that Muslims are commanded to participate in good things and to work for righteousness (Al-Mu'Minun: 51). According to Abdullah ibn Masud (May Allah be well pleased with him), Prophet Muhammad (PBUH), said: "Seeking halal earning is a duty after the duty." The industries and their products and services mentioned in Section 3 have been specifically prohibited in Islamic teaching (e.g. Al-Baqarah: 168 and 275, Al-Maida: 90).

2. *Quantitative*: After passing the first screens, the companies are further screened for compliance with the pre-determined financial ratio to test the level of equity with the following threshold-criteria: Total equity divided by total assets must be above 66.66%. (The rationale for this has been set out in Section 5.2.)

In general, all screening criteria aimed at identifying whether a stock of a company can be obtained or traded from an Islamic investors/investment perspective. The formation of

²⁹ See Gamaleldin (2015), p.21, further referring to the criterion set by Al Rajhi Bank Shariah Board Fatwa numbers 53/1990, 182/1994, 310/1998 & 485/2001.

investment portfolios from common stocks of listed companies could be sufficient with two basic criteria: *legitimate field of economic activity and active participation in risk-sharing activities*.³⁰ In specific, in order to pass the screening process, companies must engage in the production of legitimate goods and services. Furthermore, companies should actively engage in equity financing as to keep equity dominant in their capital structure.³¹ As far as Cash and Receivable ratios are concerned, both require further investigation which opens future research opportunities. As for the time being, we adopt the common practice of 33% threshold-criterion applied in current Shari'ah screening methodologies and rely on the definitions and suggestion of the Shari'ah scholars.

The application of the proposed Equity Ratio as a part of Shari'ah screens is two-fold. Whether complementary to the existing financial ratios or a substitution of the existing leverage ratio, both have the objective to offer Muslim investors better awareness and confidence regarding Shari'ah compliance in stock investments.

6. CONCLUSION

This study has discussed the historical background of the newly implemented stocks screening procedure and shown the development of the Shari'ah screening methodology with its screening criterion set by Dow Jones Islamic Market Index. Shari'ah screening methodologies which are set on two primary levels, namely qualitative and quantitative screens, are applied to distinguish between Shari'ah compliant (SC) and Shari'ah non-compliant (SNC) firms. Several authors have criticized the currently applied screening methodologies and highlighted the importance of harmonizing the screening criterion. In examining our research question, this study offers broadly three key findings. First, there is strong evidence from the Holy Qur'an that the most righteous and fair judgment is only provided when only endogenous factors are considered that are entirely in the control of each company, i.e. book values driven from their financial statements (endogenous values). Second, this study emphasizes the importance of using a screening methodology that supports the main notion of Islamic finance/economics as a whole and adhere to the essence of the ayah in Al-Baqarah: 275. Specifically, this study offers and suggests the use of the equity ratio (*equity-to-assets* $\geq 66.66\%$), derived from the "one-third is big" Hadith, instead of leverage ratio. This allows companies to preserve a higher amount of equity. Lastly, this study provides a solution to the long-standing criticism of the Shari'ah screening methodologies and offers for the first time the respective rationale behind the financial ratio, i.e. derived from the primary sources of Islam, the Qur'an and Sunnah. Furthermore, it exhibits a potential for harmonization and standardization of Shari'ah screening methodologies, which encourages the participation of Muslim investors by ensuring better awareness and confidence regarding Shari'ah compliance stock investments.

³⁰ See Hossein Askari et al. (2011), Risk-sharing in Finance: The Islamic Finance Alternative, the authors emphasize the role of vibrant stock markets for the success of risk-sharing and equity finance and further consider the stock markets as a fundamental driver of Islamic Finance.

³¹ Since a company's shares represent equity rights in its assets, the assets should be ideally in form of "real assets" as they can be sold freely at a profit like real assets (e.g. tangible goods, real estate and machinery).

REFERENCES

Adam, N. L., & Bakar, N. A. (2014). Shariah Screening Process in Malaysia. *Procedia - Social and Behavioral Sciences*, 121, 113–123.

Al-Bashir, M. (n.d.). Comments of Muhammad Al-Bashir Muhammad Al-Amine on Reviewing the Concept of Shares: Towards Dynamic Legal Perspective by Faizal Ahmed Manjoo. Available at: <http://www.kantakji.com/media/163527/file521.pdf>

Derigs, U., & Marzban, S. (2008). Review and analysis of current Shariah compliant equity screening practices. *International Journal of Islamic and Middle Eastern Finance and Management*, 1(4), 285–303.

Donia, M. and Marzban, S. (2008b). Identifying Shariah-Compliant Equities a Challenging Task, *Global Islamic Finance*. Available at: <http://www.global-islamicfinance.com/2008/11/identifying-shariah-compliant-equities.html>.

FTSE Shariah Gloval Equity Index Series. (2015). FTSE Factsheet, (11), 1–5.

Gamaleldin, F. M. (2015). Shariah-Compliant Stocks Screening and Purification. *Research Gate*, (October), 1–44.

Grais, W., & Pellegrini, M. (2006). Corporate Governance And Shariah Compliance In Institutions Offering Islamic Financial Services. *Policy Research Working Papers*. The World Bank.

Htay, S. N. N., Abedeen, Z., & Salman, S. A. (2013). Towards Standardization of Shari'ah Screening Norms and Practices. *International Journal of Humanities and Social Science Invention*, 2(11), 23–30.

Khatkhatay, M. H., & Nisar, S. (2007). Shariah Compliant Equity Investment: An Assessment of Current Screening Norm. *Islamic Economic Studies*, 15(1), 47–76.

Mian, K. (2014). Shariah screening and Islamic equity indexes. In *Islamic Finance: A Practical Guide* (p. 200).

Mian, K. M. A. (2008). Shariah Screening and Islamic Equities Indices. *Islamic Finance News*, 5(17).

Qasmi, M. M. K. (n.d.). Does Islam permit critical thinking? Available at: http://www.irfi.org/articles/articles_351_400/does_islam_permit_critical_think.htm

Sani, N., & Othman, R. (2013). Revision of Shari'ah screening methodology: The status of Shari'ah compliant companies in Malaysia. *International Conference On Management*.

Standard & Poor's. (2015). *Dow Jones Islamic Market Indices Methodology*, (July), 1–43.

Sukri Ramlee, Mohd. (2012) Shariah Stock screening Methodology, [online], Available at: <http://islamicbanking2u.blogspot.de/2012/06/shariah-stock-screeningmethodology.html?q=Screening+Methodology>.

Tversky, A., & Kahneman, D. (1981). The framing of decisions and the psychology of choice. *Science*, 211, 453-458.

Welch, I. (2011). Two Common Problems in Capital Structure Research: The Financial-Debt-To-Asset Ratio and Issuing Activity Versus Leverage Changes. *International Review of Finance*, 11(1), 1–17.

Zandi, G., Razak, D. A., & Hussin, N. H. (2014). Stock market screening: An analogical study on conventional and shariah-compliant stock markets. *Asian Social Science*, 10(22), 270–279.

APPENDIX

Amir b. Sa'd reported on the authority of his father (Sa'd b. Abi Waqqas): Allah's Messenger (may peace be upon him) visited me in my illness which brought me near death in the year of Hajjat-ul-Wada' (Farewell Pilgrimage). I said: Allah's Messenger, you can well see the pain with which I am afflicted and I am a man possessing wealth, and there is none to inherit me except only one daughter. Should I give two-thirds of my property as Sadaqa? He said: No. I said: Should I give half (of my property) as Sadaqa? He said: No. He (further) said: Give one-third (in charity) and that is quite enough. To leave your heirs rich is better than to leave them poor, begging from people; that you would never incur an expense seeking therewith the pleasure of Allah, but you would be rewarded therefor, even for a morsel of food that you put in the mouth of your wife. I said: Allah's Messenger, would I survive my companions? He (the Holy Prophet) said: If you survive them, then do such a deed by means of which you seek the pleasure of Allah, but you would increase in your status (in religion) and prestige; you may survive so that people would benefit from you, and others would be harmed by you. (The Holy Prophet) further said: Allah, complete for my Companions their migration, and not cause them to turn back upon their heels. Sa'd b. Khaula is, however, unfortunate. Allah's Messenger (may peace be upon him) felt grief for him as he had died in Mecca.

Sahih Muslim, Book 13 "Kitab Al-Wasiyya" No: 3991

Humaid b. 'Abd al-Rahman al-Himyari reported from three of the sons of Sa'd all of whom reported from their father that Allah's Apostle (may peace be upon him) visited Sa'd as he was ill in Mecca. He (Sa'd) wept. He (the Holy Prophet) said: What makes you weep? He said: I am afraid I may die in the land from where I migrated as Sa'd b. Khaula had died. Thereupon Allah's Apostle (may peace be upon him) said: O Allah, grant health to Sa'd. O Allah, grant health to Sad. He repeated it three times. He (Sa'd) said: Allah's Messenger, I own a large property and I have only one daughter as my inheritor. Should I not will away the whole of my property? He (the Holy Prophet) said: No. He said: (Should I not will away,) two-thirds of the property? He (the Holy Prophet) said: No. He (Sa'd) (again) said: (Should I not will away) half (of my property)? He said: No. He (Sa'd) said: Then one-third? Thereupon he (the Holy Prophet) said: (Yes), one-third, and one-third is quite substantial. And what you spend as charity from your property is Sadaqa and flour spending on your family is also Sadaqa, and what your wife eats from your property is also Sadaqa, and that you leave your heirs well off (or he said: prosperous) is better than to leave them (poor and) begging from people. He (the Holy Prophet) pointed this with his hands.

Sahih Muslim, Book 13 "Kitab Al-Wasiyya" No: 3997